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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/673,964	12/19/2000	Mikael Kubista	GOTE.P-039	8802
21121	7590	04/08/2004	EXAMINER	
OPPEDAHL AND LARSON LLP			SUAREZ, FELIX E	
P O BOX 5068			ART UNIT	
DILLON, CO 80435-5068			PAPER NUMBER	

2857

DATE MAILED: 04/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/673,964

Applicant(s)

KUBISTA, MIKAEL

Examiner

Felix E Suarez

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Abstract

1. The abstract of the disclosure is objected to because it has less than 150 words. Correction is required. See MPEP § 608.01(b).

Information Disclosure Statement

2. The information disclosure statement filed 26 January 2001 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because in the FOREIGN list, page 1, the item listed "WO 95331713" and in the OTHER ART list, page 2, the item listed "Journal of Chemo metrics", they are not included at the moment of the examination. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 15-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 15-28 are directed to mathematical operations that manipulate abstract ideas without a practical application. See MPEP 2106; page 2100-12.

With respect to independent claim 15, method for characterizing samples to determine the content of the samples comprising the step of obtaining a sample, or pair of samples, processing the sample or samples to generate a multidimensional response according to

$$I(\alpha, \beta, \gamma \dots) = \sum c_i I_i(\alpha) I_i(\beta) I_i(\gamma) \dots$$

where the number of data points in each dimension are at least two

$$\alpha_1, \alpha_2, \dots, \alpha_l \quad l \geq 2$$

$$\beta_1, \beta_2, \dots, \beta_m \quad m \geq 2$$

$$\gamma_1, \gamma_2, \dots, \gamma_n \quad n \geq 2$$

and calculating the 1-dimensional responses of the components, $\tilde{I}_l(\alpha)$, $\tilde{I}_l(\beta)$, $\tilde{I}_l(\gamma) \dots$ to provide an indication of the content of the sample or samples.

The Examiner considers that the multidimensional response mathematical equation " $I(\alpha, \beta, \gamma \dots) = \sum c_i I_i(\alpha) I_i(\beta) I_i(\gamma) \dots$ " is a general representation for a sum of sequences, events, dimensions or another class of elements.

This general mathematical representation, have n solutions as n elements or dimensions are considered in the spectral analysis; if the elements are included in a mathematical formula, formula which gives the spectral form of the analysis, it is possible to get a solution for those elements; without an analytical formula, this will be always an abstract mathematical idea.

To get the solution for one, two or for the total of the elements is necessary to convert this general representation to a real spectral denomination including parameters, limits, constants and all that is necessary to manipulate a mathematical expression to get a practical application. And the expression

“calculating 1-dimensional responses of the components, $\tilde{I}_1(\alpha)$, $\tilde{I}_1(\beta)$, $\tilde{I}_1(\gamma)$... to provide an indication of the content of the sample or samples” represents the abstract solution for one element or sample or for one dimension, without practical application.

The Examiner notes that the general expression is a scalar representation impossible to give a vector solution as is indicate in the 1-dimentional response calculated solution.

The Examiner notes that the expression “to determine the content of the samples” is too general and ambiguous, because a sample is a simple data.

With respect to claims 16-28, they represent an abstract mathematical solution for two, or more dimensions and they do not give a practical statement, because they obey calculations, of a mathematical expression to get numerical results.

Final Rejection

Response to Arguments

4. This action is responsive to papers filed 03/10/2004.

5. Applicant's arguments filed 03/10/2004 have been fully considered but they are not persuasive respect to claims 15-28. The Examiner has thoroughly reviewed applicant arguments, but believes the cited references to reasonably and properly meet the claimed limitations.

Applicants' primary argument is that "*Claim 15 has been amended to recite positive method steps including the steps of obtaining and processing a sample. This amendment is believed to overcome the rejection. In addition, claim 20 has been amended to delete a list that was presented as merely exemplary*". The Examiner disagrees.

With respect to independent claim 15, the applicant's method including the steps of obtaining and processing a sample, the Examiner notes that it is general and ambiguous;

is general, because a sample is a simple data or any number applied to referred mathematical formula; and

is ambiguous, because processing a sample number is to do calculations, or processing a sample is a process to obtain a final product, or is processing an input data signal in a digital signal processor to obtain a signal representing a characteristic of the sample or samples.

With respect to the IDS, it is included a list in the International Search Report, but not the documents of this list. A copy of this list is attached.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Conclusion

Prior Art

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hively et al. [U.S. Patent No. 5,815,413] describes a d-dimensional vector.

Hill [U.S. Patent No. 6,246,481] describes a system and method that quantify nonlinearities.

Stoughton et al. [U.S. Patent No. 6,351,712] describes a step of determining an error distribution statistic.

Richards-Kortum et al [U.S. Patent No. 6,095,982] describes a fluorescence spectroscopy Diagnostic apparatus.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Felix Suarez, whose telephone number is (571) 272-2223. The examiner can normally be reached on weekdays from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on (571) 272-2216. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7382 for regular communications and (703) 308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

March 31, 2004

F.S.


MARC S. HOFF
SUPERVISORY PATENT EXAMINER
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